

In the Claims:

Please cancel claims 6-8, 11, and 13.

Please amend claims 1, 3, 4, 5, 9, 12, 14, 15, and 16 as follows:

1. (Once Amended) A heat exchange assembly including:

an internal passageway formed between a pair of spaced substantially parallel internal sheets,

respective external passageways formed between each said internal sheet and a respective external sheet spaced from and substantially parallel to a respective internal sheet;

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said pair of internal sheets at the ends of said internal passageway extending beyond said external sheets at the ends of said external passageways thereby facilitating fusion welding to said internal sheets at the ends of said internal passageway, and said internal passageway or said external passageways being adapted to receive or contain a gas for effecting heat exchange with a fluid in the other of said internal passageway or said external passageways; and

said pair of internal sheets and said external sheets each coupled to, and said internal and external passageways in fluid communication with, at least one manifold.

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3. (Once Amended) A heat exchange assembly as claimed in claim 1, and including:

a fluid inlet means at one end of said internal passageway;

a gas inlet means at one end of said external passageways;

a fluid outlet means at the other end of said internal passageway;

a gas outlet means at the other end of said external passageways; and

said at least one manifold includes an inlet manifold coupled to, and in fluid communication with, said internal passageway fluid inlet means and said external passageway gas inlet means and an outlet manifold coupled to, and in fluid communication with, said internal passageway fluid outlet means and said external passageway gas outlet means;

whereby said internal passageway is adapted to receive or contain a fluid and said external passageways are adapted to receive or contain a gas for effecting heat exchange with the fluid in the said internal passageway.

4. (Once Amended) A heat exchange assembly as claimed in claim 1, and including:

a gas inlet means at one end of said internal passageway;
a fluid inlet means at one end of said external passageways;
a gas outlet means at the other end of said internal passageway;
a fluid outlet means at the other end of said external passageways;
said at least one manifold includes an inlet manifold coupled to, and in fluid communication with, said internal passageway gas inlet means and said external passageway fluid inlet means and an outlet manifold coupled to, and in fluid communication with, said internal passageway gas outlet means and said external passageway fluid outlet means; and

whereby said internal passageway is adapted to receive or contain a gas, said external passageways are adapted to receive or contain a fluid for effecting heat exchange with the gas in said internal passageway.

5. (Once Amended) A heat exchange assembly as claimed in claim 2, said assembly constituting a panel sealed at the sides thereof by said spacing ribs and open at the ends thereof to provide access to said conduits which extend from one end of the panel to the other end thereof.

9. (Once Amended) A heat exchange assembly as claimed in claim 2, and including:

pressure relief means for relieving the pressure in said fluid passageway generated by heating fluid therein.

12. (Once Amended) A roofing panel incorporating a heat exchange assembly, said roofing panel including:

an internal fluid passageway formed between a pair of spaced substantially parallel internal sheets for the passage therethrough of a fluid;

respective external passageways formed between each said internal sheet and a respective external sheet spaced from and substantially parallel to a respective internal sheet,

spacing ribs between said sheets and forming with said sheets a plurality of fluid conduits within said internal fluid passageway and a plurality of external conduits within said external passageways;

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said pair of internal sheets at the ends of said internal passageway extending beyond said external sheets at the ends of said external passageways thereby facilitating fusion welding to said internal sheets at the ends of said internal passageway, said panel being sealed at the sides thereof by said spacing ribs and being open at the ends thereof to provide access to said conduits which extend from one end of the panel to the other end thereof, and said internal passageway or said external passageways being adapted to receive or contain a gas for effecting heat exchange with a fluid in the other of said internal passageway or said external passageways; and

at least one manifold having a fluid communication means for the inflow or outflow of a fluid to or from said fluid conduits, and a gas communication means for the inflow or outflow of a gas to or from the external conduits.

14. (Once Amended) A roofing panel as claimed in claim 12 wherein said manifold includes:

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a receiving means for receiving the internal sheets and the external sheets whereby said fluid communication means and said gas communication means are sealingly connected to the fluid passageway and the external passageways respectively.

15. (Once Amended) A roofing panel as claimed in claim 12, wherein said manifold is an extrusion and said fluid communication means and said gas communication means are channels in said extrusion.

16. (Once Amended) A heat exchange panel including:-

an internal fluid passageway formed between a pair of spaced substantially parallel internal sheets for the passage therethrough of a fluid;

respective external passageways formed between each said internal sheet and a respective external sheet spaced from and substantially parallel to a respective internal sheet;